

Amendments To The Claims:

Please amend the claims as shown.

1 – 10 (canceled)

11. (new) A repair method for repairing a component having a base material with an oriented microstructure, comprising:

applying a solder in a region of the component to be repaired wherein the solder comprises a constituent whose melting temperature is lower than the melting temperature of the component base material; and

heating the solder with a heat source;

melting the solder material by the heat source wherein the component base material is not heated;

generating a temperature gradient in the region of the component to be repaired during the heating step to produce an oriented microstructure in the repaired site which comprises the same oriented microstructure as the surrounding base material.

12. (new) The repair method as claimed in claim 11, wherein the temperature gradient extends in the direction of the orientation of the oriented microstructure of the component base material.

13. (new) The repair method as claimed in claim 12, wherein the solder comprises a first constituent with a melting temperature lower than a melting temperature of the component base material and a second constituent having a high durability and a melting temperature greater than the first constituent melting temperature but below the base material melting temperature, and the solder is applied in the region of the component to be repaired such that the proportion of first constituent in the solder is greater in the vicinity of the base material than in a portion of the component to be repaired further away from the base material.

14. (new) The repair method as claimed in claim 13, wherein the temperature gradient generated is produced by a heating source selected from the group consisting of: inductive heating, a casting furnace, and laser irradiation.

15. (new) The repair method as claimed in claim 14, wherein the temperature gradient produced by the casting furnace produces a cast piece with a directionally oriented microstructure.

16. (new) The repair method as claimed in claim 14, wherein the temperature gradient is produced by a hot box.

17. (new) The repair method as claimed in claim 16, wherein the base material is heat treated during the soldering step.

18. (new) The repair method as claimed in claim 17, wherein the solder is in the form of a powder, paste or film.

19. (new) The repair method as claimed in claim 18, wherein the solder powder is a nanopowder.

20. (new) A repair method for repairing a turbine blade or vane having a base material with an oriented microstructure, comprising:

applying a solder in a region of the component to be repaired wherein the solder comprises a constituent whose melting temperature is lower than the melting temperature of the component base material; and

heating the solder with a heat source selected from the group consisting of: inductive heating, a casting furnace, and laser irradiation;

melting the solder material by the laser irradiation the heat source wherein the component base material is not heated;

generating a temperature gradient in the region of the component to be repaired during the heating step to produce an oriented microstructure in the repaired site which comprises the same oriented microstructure as the surrounding base material.

21. (new) The method as claimed in claim 20, wherein the solder is in the form of a powder, paste or film.

22. (new) The repair method as claimed in claim 21, wherein the solder powder is a nanopowder.

23. (new) A repaired turbine component having a base material with a directionally oriented microstructure, comprising:

a base portion;

an airfoil portion arranged on the base section; and

a repair section located in the airfoil portion comprising a crack in the base material filled with a nanopowder solder material wherein the solder material has a directionally oriented microstructure that follows the orientation of the base material.

24. (new) The repaired turbine component as claimed in claim 23, wherein the solder material comprises a constituent whose melting temperature is lower than the melting temperature of the component base material.

25. (new) The repaired turbine component as claimed in claim 24, wherein the solder material is melted by a heat source that does not heat the component base material and generates a temperature gradient in a region of the repair section to produce the oriented microstructure in the repair section.